UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/007,841	12/03/2001	Amit Dhir	X-881 US	7622

24309 7590 09/21/2005

XILINX, INC
ATTN: LEGAL DEPARTMENT
2100 LOGIC DR
SAN JOSE, CA 95124

EXAMINER	
LIOU, JONATHAN	

ART UNIT	PAPER NUMBER
2663	

DATE MAILED: 09/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/007,841	DHIR ET AL.	
	Examiner	Art Unit	
	Jonathan Liou	2663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 December 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *1-17* is/are allowed.

6)☒ Claim(s) *18-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12/03/2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 18, 19, and 21are rejected under 35 U.S.C. 102(e) as being anticipated by Treadaway et al. U.S. Pat. No. 6,480,477.

3. As per claim 18, Treadaway et al. teach a method for providing a multi-platform wireless local area network (**Treadaway et al. teach the method for communicating data over a wireless link between Ethernet local area networks (col 2, lines 23-25.)**) comprising:

Providing a radio (**Treadaway teach the transceiver, which could be interpreted as a radio as claimed. See Fig.4**)

Providing a programmable input/output blocks coupled to the radio (**Treadaway et al. teach the MII is couple to radio, and it would be considered as a programmable input/output blocks. See Fig.4.**)

Providing configuration logic blocks couple to the programmable input/output blocks (**Treadaway et al. teach MAC control unit and radio framer in Fig. 4 could**

be interpreted as the configuration logic blocks as claimed and is couple to MII, which could be interpreted as programmable input/output blocks as claimed.)

Storing a plurality of medium access control layers compatible with the radio and configured to program the configuration logic blocks (**In Fig. 23, Treadaway et al. shows a plurality of medium access control layers are stored in the logic blocks. Treadaway et al. teach the plurality medium of control layers compatible with the network transceiver, which could be the radio as claimed. They also teach the data can synchronize to the radio frame, which could be interpreted as configuring to program the configuration logic blocks. See col 2-4, lines 64-54.**)

Selectably programming a first portion of the configuration logic blocks with a medium access control layer from the plurality of medium access control layers (**Treadaway et al. teach first data is sent to first Mac, second data is sent to second Mac, and so on... Hence, it could be interpreted as programming a first portion of the configuration logic blocks with a medium access control layer from the plurality of medium access control layers. See col 2-4, lines 64-54.**)

4. As per claim 19, Treadaway et al. teach the method further comprising:

Storing a plurality of encryption algorithms configured to program the configuration logic blocks; (**Treadaway et al. teach the MAC unit could also include a data encryption apparatus coupled to the data switch. See col 3, lines 56-57 and col 4, lines 9-11.**)

Selectably programming a second portion of the configuration logic blocks with an encryption algorithm from the plurality of encryption algorithms (**In Fig.16 of**

Treadaway et al., the portion of encryption block located could be interpreted as a second portion of the configuration logic blocks. It could be selected from a plurality of encryption algorithms for different data. See col 23-24, lines 47-15.)

5. As per claim 21, Treadaway et al. teach the circuit board (**Fig. 3 and 6.**) comprising:

Transceiver means for receiving and transmitting information (**Fig. 2,3, and 16 shows the transceiver could be receiving and transmitting information.**)

Configurable logic means couple to the transceiver means for communicating therewith, the configurable logic means for programming as a medium access control layer selected from a plurality of medium access control layers selected from a plurality of medium access control layers (**MAC and Radio Framer section could be configurable logic means and couple to the transceiver means for communicating. See Fig. 16. Treadaway et al. teach MAC unit for could select which data would be used in a MAC from a plurality of MACs (col 3-4, 35-54, Treadaway et al.**)

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Treadaway et al. U.S. Pat. No. 6,480,477, and in view of Sugar et al. U.S. Pat. No. 6,526,264.

8. As per claim 20, Treadaway et al. teach the method of claim 19 above in the office action. However, Treadaway et al. do not specifically teach the host interfaces configured to program the configuration logic block. Sugar et al. teach a MAC Processor interfaces with a host device to exchange MAC data and system control and configuration data (col 4, lines 10-12, and Fig. 2, Sugar et al.)

Treadaway et al. teach a micro-processor couple to the MAC with the interface to process the data (col 22, lines 41-47, and Fig. 23, Treadaway et al.) It would also need a plurality of interfaces configured to program the configuration logic blocks in Treadaway et al.'s structure. Hence, the structure of Treadaway et al., in view of Sugar et al., could have a plurality of host interfaces configured to program the configuration logic blocks, and a third portion of the configuration logic blocks with a host interface from the plurality of host interfaces. Since Sugar et al. directly teach a WLAN system (col 1, lines 10-13, Sugar et al.), it would have been obvious to one having ordinary skill in the art at the time the invention was made to include a host device to exchange MAC data and configure data on Treadaway et al.'s system in view of Sugar et al. because this would switch the data for the different MAC system or different incoming data.

9. Claims 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Treadaway et al. U.S. Pat. No. 6,480,477, in view of Lee et al. U.S. Pat. No. 5,636,140.

10. As per claim 22, Treadaway et al. teach the circuit board of claim 21. They teach the programming means for the plurality of medium access control layers for programming a portion of logics means (Treadaway et al. teach the system includes a microprocessor, MAC, and a radio framer. The microprocessor could be the programming means for MACs to program a radio framer, which is a portion of logic means. See Fig. 3-4 and col 9, lines 11-24, Treadaway et al.) They do not teach storage means for storing programming means and providing the configuration instructions. Nevertheless, Lee et al. teach a storage means to provide the configuration instructions as programming for medium access control layer (col 5, lines 30-36, Lee et al.) Since Treadaway et al. teaches a plurality of medium access control layers (col 4, line 29-34, Treadaway et al.) and Lee et al. teach the instructions to control the medium access control layer (col 5, lines 30-36, Lee et al.), it would be obvious to have configuration instructions for the plurality of medium access control layers for Treadaway et al.'s structure. Since MAC unit in Treadaway et al. structure (Fig. 16.) could be interpreted as part of the configurable logic means as taught above in the office action, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have storage means for providing configuration instructions for the plurality of MAC for programming a portion of the configurable logic means based on Treadaway et al. and in view of Lee et al. because this would provide advantage on selecting MAC for incoming data.

11. As per claim 23, Treadaway et al. in view of Lee et al. teach the circuit board of claim 22. Treadaway et al. teach the encryption means (Fig 16, and col 4, lines 34-38.

Treadaway et al.), Lee et al. teach the instructions stored in the memory (col 5, lines 30-31, Lee et al.). Treadaway et al. shows the encryption means for providing configuring another portion of the configurable logic means with an encryption engine (Fig. 16, Treadaway et al.) Based on Treadaway et al., in view of Lee et al., the encryption means could have a configuration instruction for configuring portion of the configurable logic means with an encryption engine.

12. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Treadaway et al U.S. Pat. No. 6,480,477, in view of Lee et al. U.S. Pat. No. 5,636,140, and further in view of Sugar et al. U.S. Pat. No. 6,526,264.

13. As per claim 24, the structure of Treadaway et al. in view of Lee et al. teach the circuit board of claim 22 with storage means and instructions. Their structure does not teach the host interface. Sugar et al. teach the host interface as taught above for claim rejection 20. Therefore, following the same basis and rationale for claim rejections 20, 22 above are applied.

Allowable Subject Matter

14. The following is an examiner's statement of reasons for allowance: Claims 1-17 are patentable for the subsystem for use in a wireless local area networking device.

As per claim 1, the cited references teach a transceiver, programmable gates and memory. However, the references do not teach or suggest any motivation to combine for providing the instructions for programming a first portion of the programmable gates as a selected one of a medium access layers, wherein the first type of the medium access layer and the second type of the medium access layer are

different, and the memory storing instructions for programming a second portion of the programmable gates as a baseband controller.

As per claim 12, the cited references teach a field programmable gate array, a radio, a memory device, and an interface. However, they do not teach or provide any motivation to combine for programming instructions to configure a radio interface, a medium access control protocol engine and a baseband processor interface.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Liou whose telephone number is 571-272-8136. The examiner can normally be reached on 8:00AM - 5:00PM Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jonathan Liou

9/12/2005

RICKY NGO
PRIMARY EXAMINER